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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ARNADE, ELIZABETH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,363	Applicant(s) TROMMELEN ET AL.	
	Examiner ELIZABETH ARNADE	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7, 9,11,13-14 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9,11,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/6/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/17/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a final Office action in response to applicant's arguments filed on 4/20/2009, the response to a non-final Office action on 1/13/2009. Claims 1, 2, 4-7, 9, 11, 13, and 14 are still pending as amended on 4/20/2009, claims 3, 8, 10, and 12 having been canceled.

Election/Restrictions

2. Applicant's election of Group I, claims 1-6 and 8-14 in the reply filed on 4/20/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 7 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/20/2009.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2, 4-6, 9, 11, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by the applicant in regards to claim 1 wherein it states “that during a predetermined time-frame at a start of the extrusion process, measured values or information derived from the measured values is made accessible to the computer for a greater number of measuring cycles than is recorded by the thickness-measuring probe in a time-frame of length similar to the predetermined time-frame during a normal operation”.

The terms “greater”, “more quickly”, “larger” and “normal” in claims 1 and 2 are relative terms which render the claim indefinite. It is unclear as to what is defined to be “normal operation” and therefore what would be included or excluded as “greater”, “more quickly” or “larger” than “normal operation. The term “normal operation” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is indefinite as to how many more measuring cycles are taken into account in relation to the given reference point (i.e. “normal operation”) as pertains to claims 1 and 2. Similarly it is indefinite as what degree (i.e. how quick) the thickness measuring probe moves in relation to the given reference point.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-6, 9, 11, 13, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Akasaka, European Patent EP0329157.

In regards to claim 1, Akasaka teaches a process for automatically controlling a thickness of an extruded film (pg. 2, lines 3-4 and 40-41) comprising: measuring thickness profile values of the extruded film with a thickness-measuring probe that is moved along a surface of the film substantially perpendicular (x) to a conveying direction (z) of the extruded film, the thickness-measuring probe recording for each measuring cycle (MZ) a thickness profile (P) of the film at least across parts of an expansion of the film perpendicular (x) to the conveying direction (z), i.e. a thickness gauge is reciprocated along the width of the film; transmitting the measured values to a control unit; storing the transmitted measured values in a storage unit, i.e. memory, providing statistical values of the film thickness using a computer by taking into account the measured values or information derived from the measured values using a definite number of measuring cycles (MZ); determining deviations in the statistical values of the film thickness from a target value; and generating control commands to a device for controlling the film thickness, i.e. thickness adjusting device, such that during a predetermined time-frame at a start of the extrusion process, measured values or information derived from the measured values is made accessible to the computer for a number of measuring cycles, and that the computer takes into account the measured values while providing the statistical values, at least a part of the measured values

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originating from the storage unit, which makes accessible the measured values or the information derived from the measured values to the computer, the measured values or the information derived from the measured values originating from measuring cycles that were recorded in another extrusion process in which the deviations in the film thickness from the target value lay within an acceptable tolerance range (Fig. 1; Claim 1, pg. 25, line 41 to pg. 26, line 7).

The examiner interprets “another extrusion process” to be any extrusion process that differs only in the time at which it was carried out compared to a reference.

Akasaka discloses that past time data is stored in a memory and made accessible to the computer (pg 25, line 49 to pg 26, line 7). The examiner interprets past time data as data from another/previous extrusion processes.

The examiner points out that Akasaka teaches that the data from the measuring probe is measured and stored for the range in which the values fall within or do not fall within proximity of a target value (pg 25, lines 43-52), i.e. the values may be collected when a difference between an actual thickness and a thickness target value lay within “acceptable tolerances”. Thus the limitation in claim 1 wherein it states “at least a part of the measured values originating from the storage unit, which makes accessible the measured values or the information derived from the measured values to the computer, the measured values or the information derived from the measured values originating from measuring cycles that were recorded in another extrusion process in which the deviations in the film thickness from the target value lay within an acceptable tolerance range” is encompassed by the teachings of Akasaka.

As for claim 1, Akasaka does not expressly disclose that the “measured values or information derived from the measured values” is taken from “a greater number of measuring cycles than those recorded by the thickness-measuring probe in a time-frame of length similar to the pre-determined time-frame during a normal operation”.

It would be obvious to one of ordinary skill in the art at the time the invention was made to increase an amount of data collected by increasing the number of measuring cycles for which information is collected. The motivation for expanding the amount of data collected over an increased number of measuring cycles is to provide a higher degree of accuracy within the process in order to maintain the film thickness to a predetermined amount therefore rendering the process more efficient.

As for claim 1, Akasaka does not expressly disclose that the measured values or the information derived from the measured values originate ONLY from measuring cycles that were recorded in another extrusion process in which the deviations in the film thickness from the target value lay within an acceptable tolerance range.

It would be obvious to one of ordinary skill in the art at the time the invention was made to only include measured values or information derived from measured values from measuring cycles that were recorded in another extrusion process in which the deviations in the film thickness from the target value lay within an acceptable tolerance range. This would thus exclude outliers or measured values that fell within unacceptable tolerances, i.e. unacceptable data points. The motivation to exclude outliers or unacceptable data points (i.e. not reuse unacceptable data points) is to provide a higher

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degree of accuracy within the process in order to maintain the film thickness to a predetermined amount therefore rendering the process more efficient.

As for claim 2, Akasaka teaches that the thickness-measuring probe is moved during a predetermined time-frame at the start of the extrusion process (pg 25, lines 47-48); and in doing so determines for each time unit the measured values (pg 25, lines 43-44); and makes the measured values accessible to the computer (pg 25, line 49 to page 26, line 7).

Akasaka does not expressly disclose that the measuring probe moves “more quickly along the surface of the extruded film than in normal operation” and that the collected data is thus taken from a “larger number of measuring cycles than the number of measuring cycles used in normal operation”.

It would be obvious to one of ordinary skill in the art at the time the invention was made to move the measuring probe more quickly. By moving the probe faster/more quickly, one would be able to collect more data from the measuring probe in a similar time frame and thus perform the necessary control modifications to correct between the deviations in the measured values compared to the set value in less time than “normal operation” therefore rendering the process more efficient. The motivation to increase the speed at which the probe moves is provided by Akasaka in that the conventional method has drawbacks in that there is a large dead time for which it takes the thickness measuring probe to reach the end of the film such that it takes time for the corrections to be made by the control system (pg 3, lines 10-23). Moving the probe

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“more quickly” would be an obvious way to decrease the dead time. Therefore, it would have been obvious to one of ordinary skill in the art to obtain this invention.

As for claim 4 and 9, Akasaka teaches that various weighting factors (i.e. coefficients) are assigned to the measured values or the information derived from the measured values using different measuring cycles with which the contribution of the measured values or of the information derived from the measured values to the statistical values is defined (pg 25, lines 56-58).

As for claim 5, Akasaka further teaches that the coefficient which the data is multiplied by is subject to change and therefore teaches that these weighting factors are changed at the start of the extrusion process (pg 27, lines 33-39).

As for claims 6, 11, 13, and 14, Akasaka teaches that the measured values or the information derived from the measured values using other extrusion processes stored in the storage device are assigned to the process parameters that prevailed when they were recorded (pg 4, lines 56-58). Akasaka teaches under summary of the invention that the thickness data memory stores thickness data of the film which is measured by the thickness gauge over the whole width of the film and which is thickness data of each portion of the film corresponding to each of the operating terminal devices (pg 4, line 56-58). The examiner is interpreting thickness data stored in the data memory to included data related the thickness of the film including process parameters and therefore the measured values or information derived from the measured values is stored along with corresponding process parameters.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 2, 4-6, 9, 11, 13, and 14, filed on 4/20/2009, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH ARNADE whose telephone number is

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(571)270-7664. The examiner can normally be reached on M-F, 9-5 p.m., except alternate F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. A./
Examiner, Art Unit 1791

/ Carlos Lopez/
Primary Examiner, Art Unit 1791